Xerox Docket No. D/A4025 Application No. 10/813,278

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method of representing an arc as a series of conic curves, the method comprising:

defining an arc;

determining a bounding box;

calculating vector angles for a starting vector and ending vector; and dividing the arc into a plurality of sub-arcs, each sub-arc being defined by a conic curve definition.

- 2. (Original) The method of claim 1, wherein each of the sub-arcs is 90 degrees or less.
 - 3. (Canceled)
 - 4. (Original) The method of claim 1, further comprising:

determining a starting point and ending point of each of the plurality of subarcs, wherein the plurality of sub-arcs includes at least a first sub-arc and a second sub-arc and further wherein the ending point of the first sub-arc is the starting point of the second sub-arc.

- (Original) The method of claim 1 further comprising:
 calculating a shape parameter for the conic curve definition.
- (Original) The method of claim 5 further comprising:
 determining coordinates of a control point and a mid point of an arc chord.
- 7. (Original) The method of claim 6, further comprising:



defining a control point segment between the mid point of the arc chord and the control point.

- 8. (Original) The method of claim 7, further comprising:

 calculating the shape parameter based on a ratio of a distance between the mid

 point of the arc chord and an intersection of the control point segment and the sub-arc, and a

 length of the control point segment.
 - 9. (Original) The method of claim 1, wherein a direction of the arc is clockwise.
- 10. (Original) The method of claim 1, wherein a direction of the arc is counter clockwise.
 - 11. (Original) The method of claim 1, further comprising: transmitting the conic curve definitions to an imager.
- 12. (Currently Amended) A computer-readable medium having computer-readable program code embodied therein, the computer-readable program code-performing the when executed causing a computer to perform the method of claim 1.
- 13. (Previously Presented) An apparatus for translating an arc definition into a series of conic curve definitions, comprising:

an arc definer, which defines the arc using a bounding box, starting vector and ending vector; and

an arc divider, which divides the arc into a plurality of sub-arcs, each sub-arc being defined by a conic curve definition.

14. (Original) The apparatus of claim 13, wherein the arc divider further determines a starting point and ending point for each sub-arc.

15. (Original) The apparatus of claim 14, further comprising:

a control point determining module, which determines the control point for each sub-arc, based on the intersection point of the two lines which are tangent to the endpoints of the sub-arcs; and

a shape parameter module which calculates a shape parameter, based on the ratio of a distance between the mid point of the arc chord and an intersection of a control point segment and the sub-arc, and a length of the control point segment.

16. (Original) The apparatus of claim 15, further comprising:an input/output interface which outputs the ending point, control point and

shape parameter for each sub-arc to an imager.